

4

Chapter 4
FRAMEWORK FOR OPEN
SPACE PROTECTION
A Geographic Model



4.1 Framework for Protection Goals and Objectives

*As Burlington continues to develop, remaining natural areas become more vulnerable to encroachment and their ecology more endangered. Presently the city has approximately 650 acres of natural area either publicly owned or permanently protected by easements. **The City will work to retain a four-to-one ratio of developed land-to-protected natural areas in an effort to ensure that natural areas are protected as other land is developed.** To offset new development, additional natural areas should be permanently protected by the City, State of Vermont, Winooski Valley*

*Park District, the Nature Conservancy, and other conservation groups. **For each four acres of new development, one acre should be set aside by the developer as a natural area.***

To encourage additional protection, the City should develop a land conservation purchase program based on the value and vulnerability of natural areas of local and state significance. Areas protected through this program should remain primarily undisturbed; they should not be considered recreation parks, although pathways or trails might be appropriate in designated areas.

--1996 Burlington Municipal Development Plan, Natural Environment Section

The following goals and objectives outline the basis for the *Burlington Open Space Protection Plan* as adapted by the Burlington Conservation Board from the 1996 *Burlington Municipal Development Plan*.

1. Protect and preserve natural areas and open spaces of local, regional, and statewide significance for the benefit of future generations.
2. Maintain and improve the integrity of natural and recreational systems within the City.
 - Protect, maintain, and enhance the City's urban forest, including both large patches of woods and wooded corridors/treebelts that provide places of refuge and travel corridors for wildlife and people.
 - Protect the shorelines and waters of Lake Champlain, the Winooski River, and other water features from damage and degradation.
 - Preserve scenic view points and viewsheds.
 - Increase the number and quality of small urban open spaces, especially in underserved neighborhoods of the city.
3. Guide development into city growth centers including the city center, institutional core areas, and neighborhood activity centers.
4. Ensure long-term stewardship and appropriate public access to natural areas and open space, including improved opportunities for pedestrian access and interaction throughout the City.

An Introduction to the Plan

Areas of open space are an essential element of every successful community.

As noted in the previous chapter, open and green spaces offer a host of environmental, social, and financial benefits. Protection of open space has long been an interest and objective of the City for many years.

Pressure to develop existing open space and sensitive areas will continue to mount as the city becomes increasingly built-out and development seeks out increasingly sensitive and marginal sites.

While the City welcomes new development, it must be guided into areas that are best suited and desirable – not just those sites that remain undeveloped. For this to be effective, the City approaches this challenge from two fronts – identifying areas where new and more intensive development is welcome and encouraged (neighborhood activity centers, core-campus areas and the downtown for example), and identifying those areas that should be protected over the long term – the purpose of this plan.

Open space protection in Burlington embraces the reality that not all lands can or even should be protected from development. As a regional growth center, Burlington must find a balance between conservation and continued development that addresses the needs of the City's diverse population – present and future.

Burlington must strike a balance between protecting available open space and serving as a regional growth center.

Burlington's plans for the future strongly encourage continued growth within the city – concentrated largely within city-defined growth centers such as the center city, neighborhood activity centers and institutional core areas.

By encouraging and accommodating more development, and at higher densities than in surrounding communities, Burlington will also play a very important role in protecting open space and working lands throughout the region.

The important thing is to make smart choices based on understanding the resources important to the community's future, and how they work together as part of a more complex system.

The idea is not to protect everything, but to protect what is most important.

Burlington's *Open Space Protection Plan* consists of three main components:

- 1) A framework that will be used to define the city's land conservation priorities – described as the *Geography of Open Space* (Section 4.2);
- 2) A working inventory of existing open spaces and their important attributes (Sec. 4.3); and,
- 3) A plan of action that recommends the creation of a comprehensive land conservation program for the City through three complimentary approaches: **Conservation Education, Proactive Conservation, and Planning and Improved Development Review** (Sec. 4.4).

No single component can stand alone as an effective long-term strategy, but together, they create a comprehensive approach for open space protection. This framework is designed to be flexible, so that it can evolve with the needs and priorities of the City of Burlington as they change over time. Each is further described later in this chapter.

4.2 Geography of Open Space

A Dynamic Vision for the Future

"We must conceive of stewardship not simply as one individual's practice, but rather as the mutual and intimate relationship, extending across the generations, between a human community and its place on the earth."

--John Elder

"Among the obvious features is our relationship with the water. Of the 32 miles that make up our political boundary, 25 miles are defined by the Winooski River and Lake Champlain. No point in the city lies more than 1 and 3/4 miles from either of these two water bodies. In addition to this proximity, when we consider the streams which flow through the city, it's easy to see that much of what we do in our daily activities has the potential for adversely impacting the water which is vital for our own drinking, healthy aquatic life, and high quality recreational experiences."

--1996 Burlington Municipal Development Plan

The *Geography of Open Space* provides an over-arching vision for the future of Burlington's landscape. This is a vision of a city where natural areas, parklands, and greenbelts are physically integrated into the urban fabric to complement development with conservation - where natural and recreational systems play an essential role in enhancing environmental quality, economic prosperity, and quality of life.

The *Geography of Open Space* identifies significant natural areas and open spaces found throughout the city regardless of their current ownership or level of protection. It is intended to provide a vision within a city-wide context for open space rather than identify individual properties or sites.

These areas were identified through the use of a process which overlays and analyzes many of functional, cultural, and environmental characteristics of the city. These characteristics include zoning, neighborhoods, parklands, built form and infrastructure, topography and hydrology, forestlands and floodplains. Discernible geographic patterns emerged from the analysis. Specific objectives for each area are offered to guide future decision making.

Burlington's "vision" embraces two forms of open space that define the city's character of an urban place within a distinctively natural landscape - **Natural Systems** and **Urban Greenspaces**. As noted previously, significant natural systems are the primary focus of this Plan. However, this plan does offer a general framework for evaluating the importance of urban open space, and recommends it be amended after further evaluation and study.

1. Natural Systems

"Natural systems" include a unique collection of features and resources that hold regional significance as natural systems and open land; serve to define the character of Burlington; and, are at the foundation of the natural systems that support the city. A common theme underlying each of these sites/resources is their relationship to important water features and true natural significance.

These are the features and systems that act as the heart, lungs and circulatory system of the City - protecting air and water quality as well as providing viable habitat and travel corridors for wildlife. Although these areas should be protected and managed primarily as natural areas, many other public benefits can be realized through their protection and sensible management. These include low-impact recreational use where appropriate; interpretation of natural and cultural features; and, scientific research and education.

These areas should be considered priority areas for long-term protection via public acquisition, and be of heightened interest in any regulatory review process. Because they are so important to the health of the City, and so sensitive, this Plan recommends special attention be paid to any open space within or contiguous to these areas. Each are described below, and are identified on the *Geography of Open Space* Map found later in this chapter.

A. Lake Champlain Shoreline

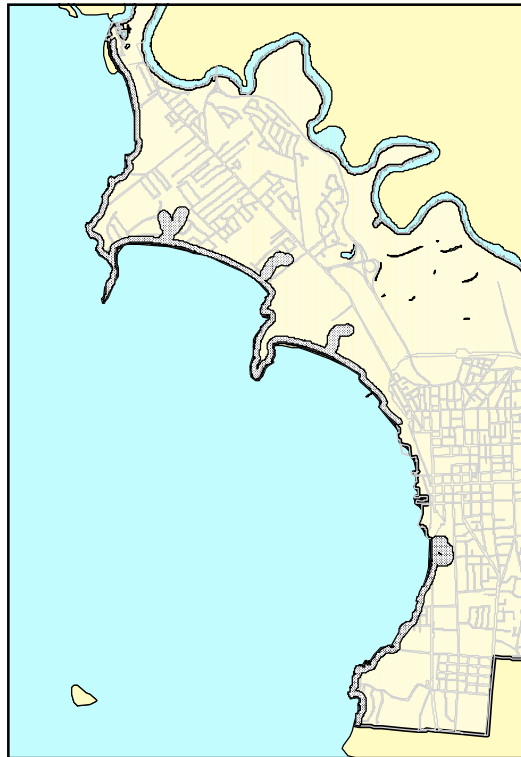
The dominating element of Burlington's landscape, natural environment, historical development, and sense of place is Lake Champlain. Although the shoreline of the lake defines the 12+-mile western boundary of the city, the area of most significant natural interest is the lakeshore north of the Moran Plant and south of Roundhouse Point. These portions of the lakeshore contain important wetland complexes such as the Barge Canal, North Beach and

Northshore Wetlands, and the Mouth of the River. They also contain prominent and sensitive lakeshore features such as Appletree Point, Lone Rock Point, and Oakledge. Much of the shoreline appears to be important as habitat for mink, which have been documented from the Northshore Wetland to the Burlington Boathouse, and from Blanchard Beach to South Cove Beach. Many other species of wildlife from migratory waterfowl to amphibians rely on the lakeshore for habitat.

Several areas of publicly protected land can be found along the lakeshore, but many more undeveloped or lightly developed areas remain. Development pressure will continue to mount, as these areas become increasingly attractive sites for residential and commercial uses.

The Lake Champlain shoreline is an area of high priority for long-term protection with the primary objectives including:

- Protection of the shoreline from further encroachment by development, and buffering the lake and wetlands from sources of non-point pollution;
- Preserving natural features and communities, cultural sites, and remnant woodlands.
- Preserving shoreline natural, cultural, and geological sites for education and research.
- Providing public access where feasible and appropriate;
- Preserving prominent views – both from the land of the lake and the Adirondak Mountains beyond, and from the lake of the bluffs, forests, city and mountains;
- Develop and maintain corridors for people and wildlife to move freely between areas of publicly protected lakeshore.



Lake Champlain Shoreline

B. Winooski River Corridor/Intervale

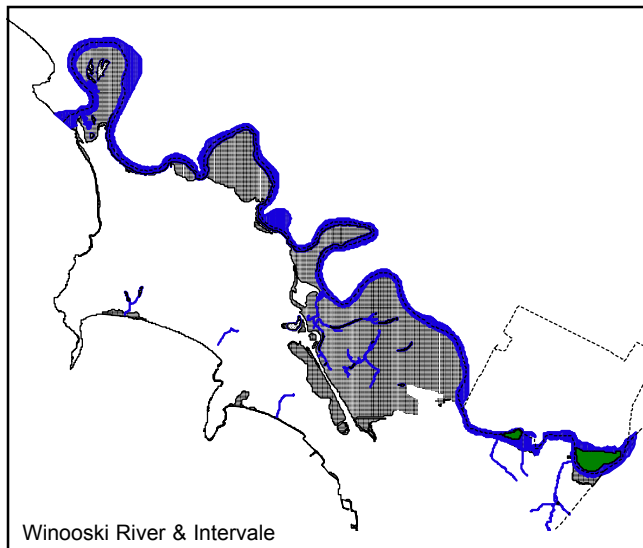
The Winooski River defines Burlington's 11+-mile northern boundary, and is part of a much larger riparian system, cultural landscape, recreational corridor, and agricultural zone that reaches to the eastern edges of Chittenden County. For Burlington (as well as neighboring Colchester), this corridor includes the large agricultural area referred to as the "Intervale;" extensive wetlands including Intervale East, Intervale West, Derway Island and Osprey; wildlife habitat, and important natural communities. This regionally significant river corridor contains the largest contiguous undeveloped open space in Burlington, and serves as an important wildlife travel corridor between Burlington, Colchester, Winooski, and South Burlington in all seasons. Finally, the river banks and upland areas are rich

"What had once been an abandoned, unkempt waterfront with rusted out oil tanks and overgrown railroad tracks is now filled with people playing frisbee, picnicking and riding their bikes. Others are waiting for a boatride aboard the Ethan Allen or purchasing tickets to take the Sugarbush Express trainride to Charlotte. Burlington has turned around to face the lake and its residents see it now as a vibrant place of recreation." ⁴

Of the 32 miles which make up Burlington's political boundary, 25 are defined by water. No point in the City lies more than 1 3/4 miles from either the Winooski River or Lake Champlain.

"No matter what is beyond, an expanse of water can never fail to have a refreshing counter interest to the inner parts of a city..."

--Frederick Law Olmstead, letter published in *The Century Magazine*, October 1886



Winooski River & Intervale

with cultural resources dating back to the region's first native inhabitants.

While much of the river bottom has "de facto protection" due to its unfavorable site and building conditions, regulation does not always ensure careful management of natural assets or public access for recreation. Therefore some form of public ownership may be necessary for certain sites.

The riverbank is also a dynamic environment where change is the norm. Particular attention needs to be paid to the "mouth of the river" and the steep sections of riverbank along the northern side of Riverside Ave. and Grove St. This is an increasingly unstable riverbank as the river continues to cut into the bank, and is fast becoming unsuitable for any type of development.



Winooski River

The Winooski River Corridor/Intervale is an area of high priority for long-term protection with the primary objectives including:

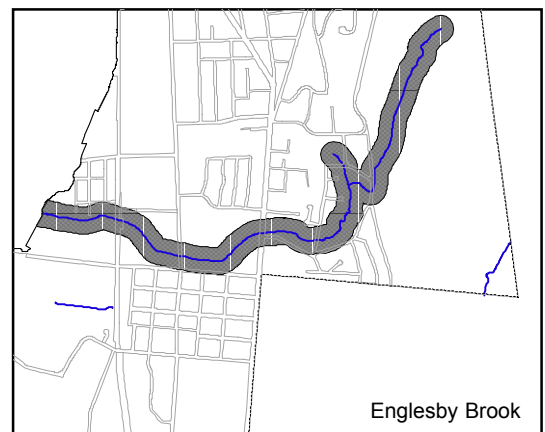
- Protection from further encroachment by development, and buffering the river and wetlands from sources of non-point pollution;

- Preserving natural features and communities, cultural sites, and remnant woodlands;
- Preserving high quality agricultural areas for the production of food and fiber;
- Protecting private property from natural hazards such as flooding and landslide;
- Preserving riparian, cultural, and agricultural sites for education and research.
- Providing public access where feasible and appropriate;
- Preserving prominent views across and within the river basin;
- Developing connections, for both people and wildlife, between areas of publicly protected river shore.

C. Englesby Brook

Englesby Brook passes directly through the southern end of city on its way to the lake. Traversing residential neighborhoods and commercial/industrial areas, Englesby serves as an important part of the urban hydrological network, and offers many natural and aesthetic qualities as well.

The brook however, is a primary source of non-point pollution entering the lake, and is largely responsible for the closure of Blanchard Beach. This system has tremendous potential as an urban greenway, and travel corridor for wildlife. Several efforts are underway to clean-up and restore this riparian corridor.



Englesby Brook

Englesby Brook is an area of high priority for long-term protection with the primary objectives including:

- Protection of the ravine itself from further encroachment by development and buffering the stream from sources of non-point pollution;
- Improving the water quality of the brook as it enters Lake Champlain;
- Preserving natural features and communities, cultural sites, and remnant woodland;
- Protecting private property from natural hazards such as flooding and landslide;
- Providing public access where feasible and appropriate;
- Developing connections, for both people and wildlife, between areas of publicly protected stream bank.

D. Centennial Woods

Centennial Woods is an 87-acre forest community found on the city's eastern boundary and shared with the City of South Burlington. The Vermont Natural Heritage Program describes the area to include: White Pine-Northern Hardwood Forest, Mesic Transition Hardwood Forest, Hemlock Forest, Shallow Emergent Marsh, Cattail Marsh, Woodland Seep/Spring Run, and Scrub-Shrub Wetland.

This deltaic-remnant of the Champlain Sea hosts numerous small streams and wetlands in its matrix of mature upland forest communities. It stands out as one of the few

remaining examples of predominantly upland wildlife habitat within the city and boasts recent sightings of moose, fisher, and red fox. The area is also heavily used for education and research by the University, and for passive recreation by the entire community.

While the University of Vermont has taken steps to permanently protect 67 acres of this area, more remains. The area is also greatly influenced by development on the fringes which impacts water quality and threatens to limit access to and through the site for wildlife.

Centennial Woods is an area of high priority for long-term protection with the primary objectives including:

- Protection from further encroachment by development and buffering the brook and wetlands from sources of non-point pollution;
- Preserving natural features and communities, cultural sites, and remnant woodland;
- Preserving a large and diverse forest community for education and research;
- Providing public access where feasible and appropriate;
- Developing connections, for both people and wildlife, between areas of publicly protected sites.

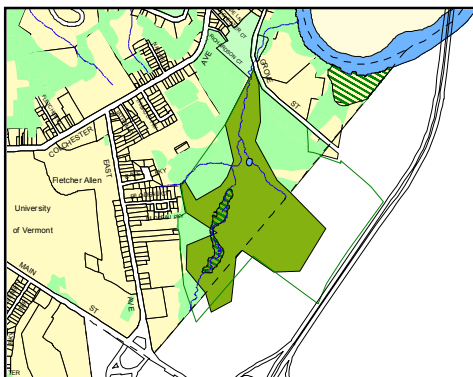
E. Natural Heritage Communities/Surface Water

While the previous four geographic areas encompass the majority of sensitive sites found throughout the city, several small areas remain and must be included for protection. These areas are best defined by type, and include: Vermont Non-Game and Natural Heritage Program sites; wetlands and adjoining riparian systems; and all surface water found on 1:24,000 USGS maps. Examples include the Mount Calvary Red Maple Swamp, UVM's Redstone Quarry Natural Area, Flynn Estate, Ethan Allen Park, the Arms Grant, and numerous small streams and wetlands.

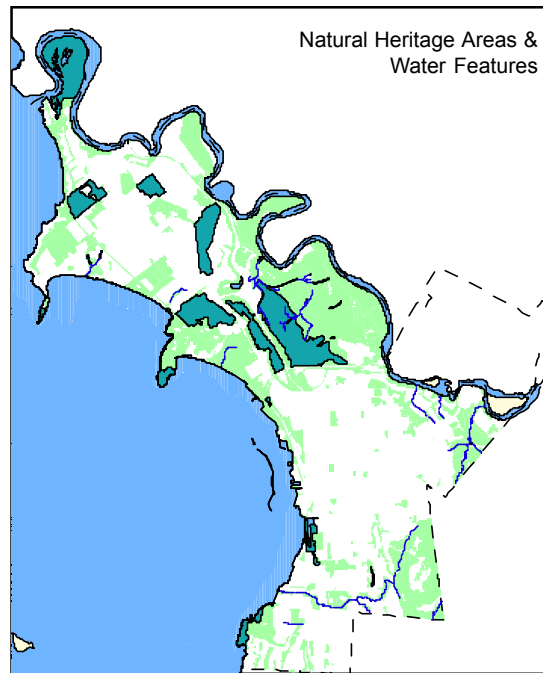


"A small space, it should not be forgotten, may serve to present a choice refreshment to a city, provided the circumstances are favorable for an extended outlook upon natural elements of scenery."

--Frederick Law Olmstead, letter published in *The Century Magazine*, October 1886



Centennial Brook Area



While often small and remote, these features are important natural assets and are integral components to the city's natural infrastructure. They feed the larger natural systems and offer areas of respite and refuge for people and wildlife within the urban fabric of the city.

These are areas of high priority for long-term protection with the primary objectives including:

- Protection from further encroachment by development, and protecting surface waters and wetlands from sources of non-point pollution;
- Protect and enhance water quality near public beaches and other water-based recreation areas from sources of non-point pollution;
- Preserving natural features and communities, geologic features and cultural sites for education and research.
- Providing public access where feasible and appropriate;
- Developing connections and corridors for wildlife between areas of publicly protected sites.

2. Urban Greenspaces

The second category of open space that is especially important to Burlington are those that are considered "urban open space." These types of sites were identified by the community as being a very important factor in supporting neighborhood quality of life and the overall livability of the City.

The City's interest in these areas is for softening densely developed neighborhoods, creating an aesthetic within the city, and providing small areas of refuge from the urban hardscape.

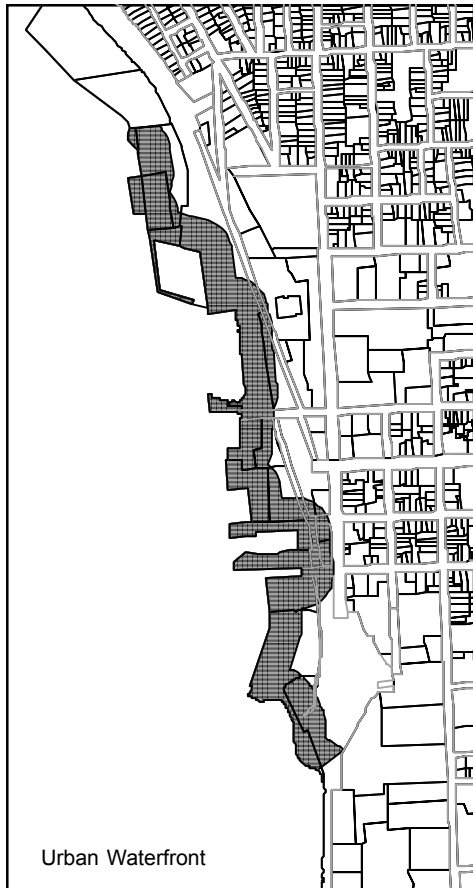
A. Neighborhood Greenspaces

Neighborhood greenspaces contribute substantially to the livability and sense of community in the more densely populated areas of the city, particularly the Old North End and the South End. Public parks, cemeteries, community gardens, pocket parks, and even expansive front and back yards create a "green" fabric that define and enhance neighborhoods. They offer places for recreation, community gatherings, interaction with neighbors, and quiet reflection.

Protection of neighborhood greenspace provides an opportunity to secure, and possibly expand, open space in portions of the city currently under-served. Future efforts may concentrate on securing community gardenspace, expansion of cemeteries, creation of pocket parks, protecting prominent yard areas, and managing pockets of urban forest.



Starr Farm Community Gardens



Urban Waterfront

B. Urban Waterfront

The Urban Waterfront, between the Moran Plant and Roundhouse Point, is an area of very intense public and private activity and interest. This portion of the waterfront is widely celebrated for its public space, history, special events, and water-based activities. It is a place where careful and tasteful mixed-use development is encouraged in order to support the creation of a "year-round waterfront."

The water-side portion of the Urban Waterfront is within the Burlington Breakwater, and the subject of the most intensive use as the site of ferry service, excursion boats, transient and seasonal boating facilities. Future plans intend to further organize and enhance water-based activities in this portion of the Burlington Harbor.



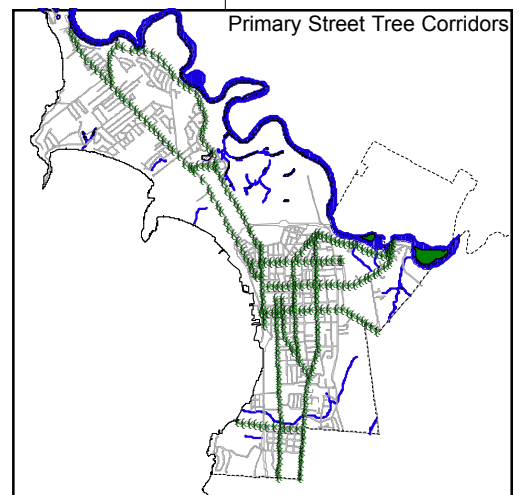
Urban Waterfront

In New York City, the long-neglected Bryant Park, located behind the New York Public Library, recently underwent a five-year, \$9 million renovation. Today, Bryant Park offers lawns, flower gardens, news and coffee kiosks, pagodas, a thriving restaurant, and hundreds of movable chairs under a canopy of trees. On some days, more than 4,000 office workers and tourists visit the park, and more than 10,000 people gather for special events.¹

However, providing adequate greenspace and unrestricted access to the lakeshore is a matter of passionate public interest and concern. Future efforts must take into account views of the lake and Adirondak Mountains, access to the water for car-top boats such as canoes and kayaks, water quality, and access to the shoreline by pedestrians as important open space objectives for this area.

C. Treebelts

Burlington is a city of trees; streets and backyards abound with a canopy of green. This resource is threatened, however, by increased environmental stresses such as air pollution and urban runoff, insects and disease, climactic events such as the 1998 Ice Storm and the drought of 1999, as well as by continued development. Urban forestry initiatives, linked with open space protection, can place a higher priority on the cultivation and enhancement of treebelts. This serves to establish connectivity and continuity of green throughout Burlington, defining the



Primary Street Tree Corridors

Urban Trees in Atlanta

- Proportion of tree cover in the total land area of Atlanta, Georgia: 27%
- Estimated annual value of this tree cover to improving Atlanta's air quality: \$15 million
- Additional annual economic benefits to air quality that would be realized if Atlanta's tree cover were increased to 40 percent, the proportion recommended by the forestry organization American Forests: \$7 million
- The amount Atlanta's current tree cover has saved by preventing the need for stormwater retention facilities: \$883 million
- Additional economic benefits in stormwater retention that would be realized if Atlanta's tree cover were increased to 40 percent: \$358 million
- Decline in natural tree cover in the Atlanta metropolitan area since 1972: 60 percent³

city's sense of place while providing numerous environmental benefits.

Treebelts are especially important when one considers the density of the neighborhood in which it is located, and the role they play in the overall urban design of the city. The most important of which are identified as a "Primary Street Tree Corridors," as delineated in the 2000 *Burlington Street Tree Planting Plan* and include Gateways, North Ave, Battery St, Shelburne Rd, North and South Willard Sts, St. Paul St, North and South Winooski Aves, Riverside Ave, Colchester Ave, Pearl St, Main St, and the Northern and Southern Connectors.

D. Recreational Linkages and Trails

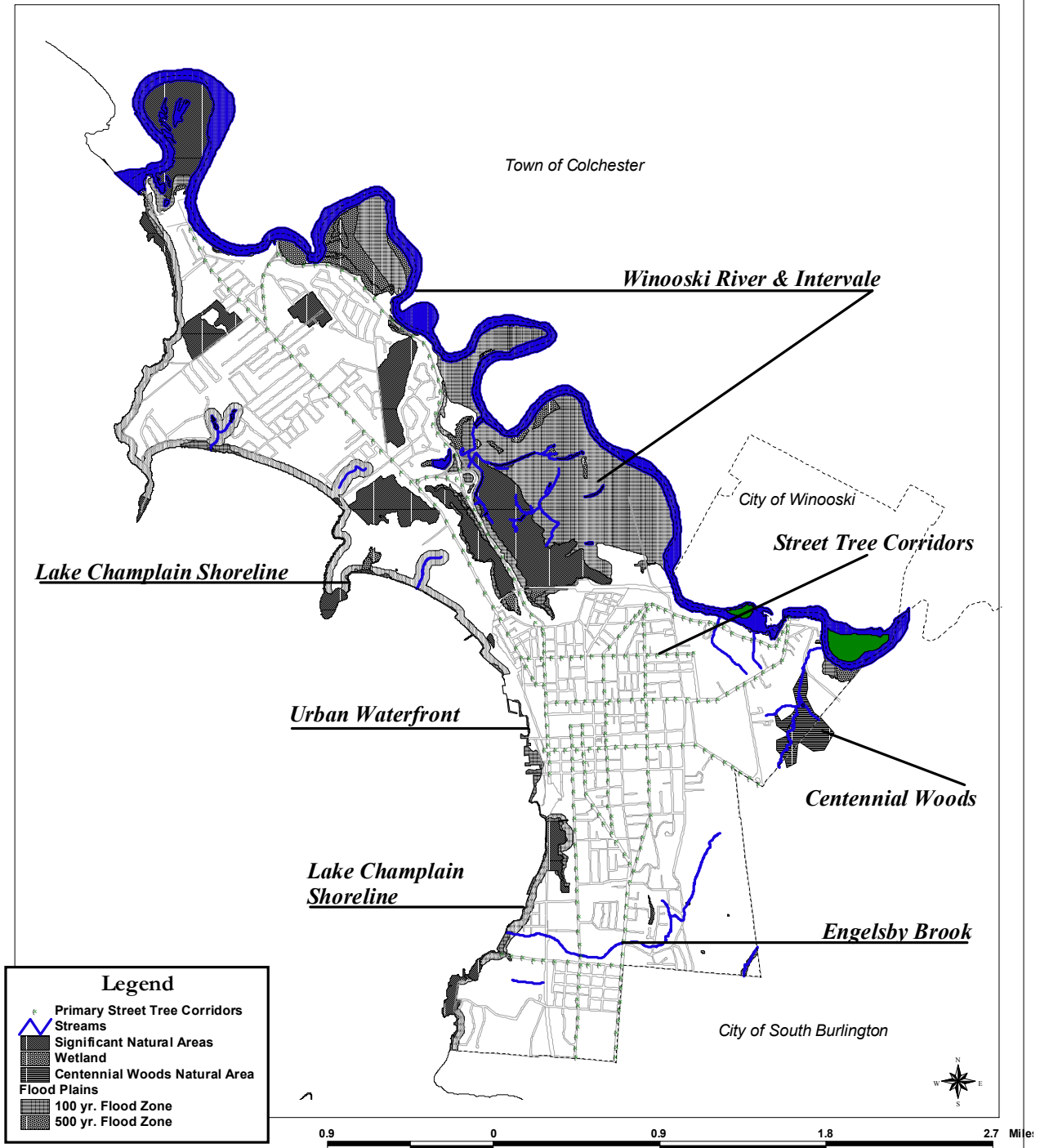
Just as connections between natural areas are important to the integrity of natural systems and enable travel corridors for wildlife, so is connectivity between neighborhoods, community facilities, and recreational areas. These include access to schools, parks and natural areas, trails linking neighborhoods to each other, and trail systems such as the bike path.

Trails and paths provide an important transportation function to those without automobiles, and are an enjoyable and clean alternative to motorized travel. While some information is available for certain trails, much more work needs to be done to identify these trails, and understand how they are used. Future efforts may also include acquisition of trail easements to preserve public access to the routes.



River Walk Trail along the Winooski River

2000 Burlington Open Space Protection Plan



The Geography of Open Space

4.3 The Land Inventory

A Tool for Open Space Protection

This section of the Plan complements the “*Geography of Open Space*” by offering an inventory of open space currently found within the city. While Section 4.2 prioritizes general areas of the city for future protection, this section provides important background information that will be necessary for evaluating specific sites.

How the Inventory Was Developed

This inventory is the most up-to-date list of some of the larger or more important open spaces in the City of Burlington. It was developed from an exhaustive review of previous maps and studies, some done by the City of Burlington, some by area students, and others by other researchers. Burlington residents added to the inventory through a series of public meetings. This inventory represents the most comprehensive approach to-date for cataloging and characterizing city open spaces and their attributes of interest to the public.

The Inventory has two components: a map (**Burlington Open Space 1999**), and a table (**1999 Land Inventory**) further describing each of these sites.

A 1988 inventory of open space and undeveloped sites in Burlington served as the base map. Based on aerial photography, this inventory identified spaces of significant size (generally over 1 acre) known at the time. To these were added sites that have been identified since 1988. Open space that has been converted to other uses during that time were deleted from the map.

Each site was evaluated based on existing research by the consultant team, to develop a list of attributes that would help define the resources present and areas of likely public benefit/interest.

Each site attribute, such as size, location, zoning, and ownership are identified on the inventory. The second component identifies qualities and attributes associated with each site. These characteristics are grouped into the following categories: natural values, working values, recreational and educational values, historical and cultural values, and other urban open space values or uses. Within each of these six broad categories, several specific features were identified that each open space might possess.

How to Use the Inventory

The Burlington Open Space Protection Plan’s Land Inventory is a living document that will require regular monitoring and updating as the city changes. The *Inventory* itself makes no attempt to rank or prioritize sites for protection. The *Inventory*, along with the *Geography of Open Space*, will be used by the City as informational tools to guide the prioritization and protection of sites, as explained in this Plan.

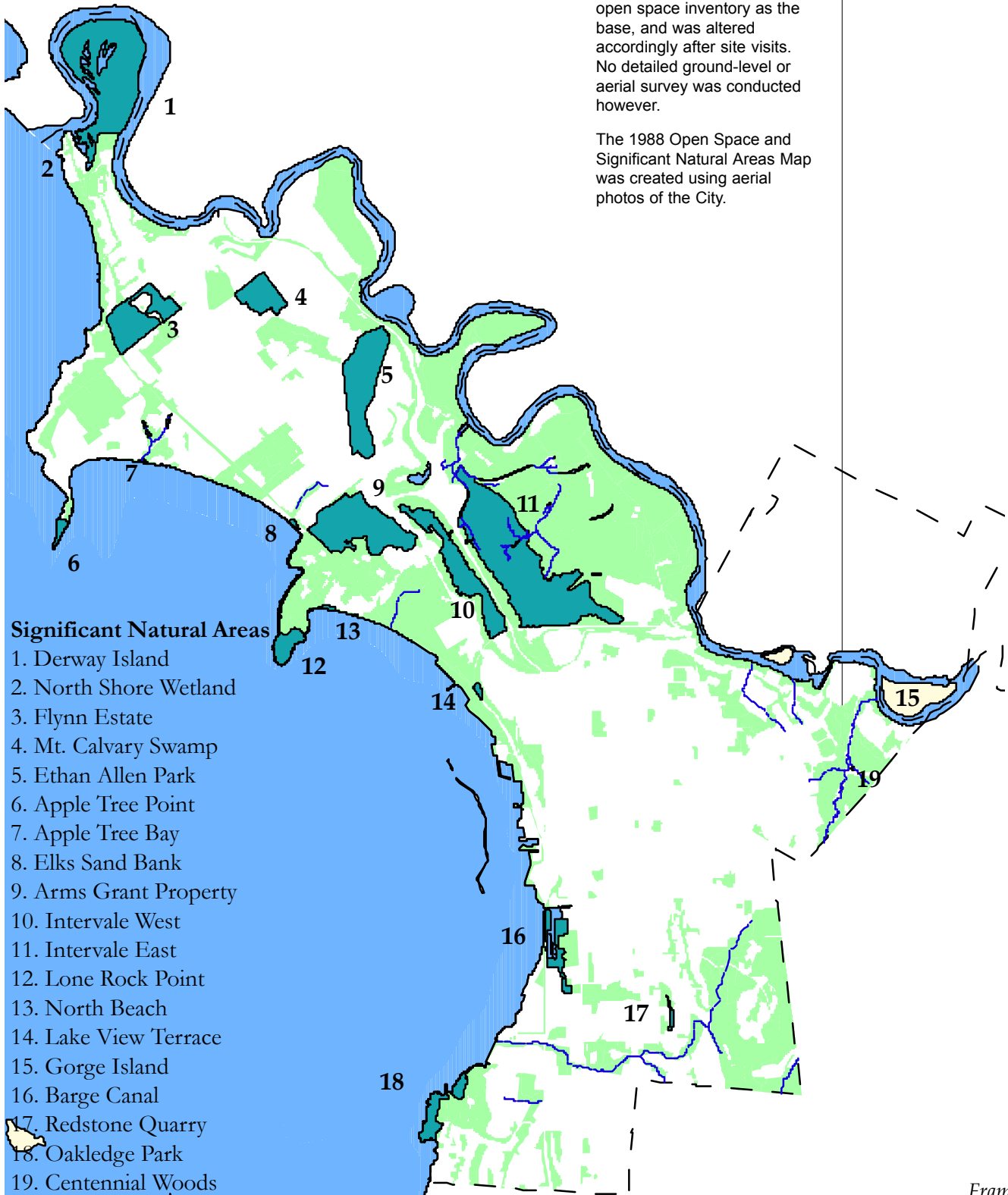
The following pages contain a sample of the kind of information contained in the Land Inventory. The entire inventory as of the completion of this plan can be found as an attachment. Revisions and updates are anticipated.

The Land Inventory is designed, not as an exhaustive list of all of Burlington’s open spaces, but as a framework for future identification, protection, and management of open space parcels.

1999 Open Space Inventory

The 1999 Open Space Map was developed using a 1988 open space inventory as the base, and was altered accordingly after site visits. No detailed ground-level or aerial survey was conducted however.

The 1988 Open Space and Significant Natural Areas Map was created using aerial photos of the City.



Inventory Data

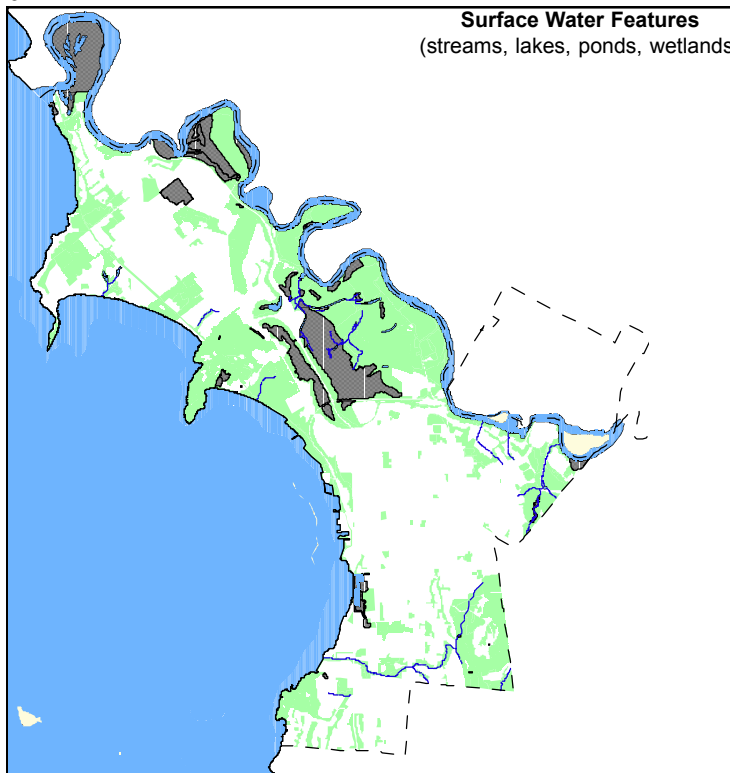
The following series of maps provided the foundation to the development of the Inventory and the Geography of Open Space to determine areas of particular sensitivity and value.

What You Can Do To Protect Wetlands

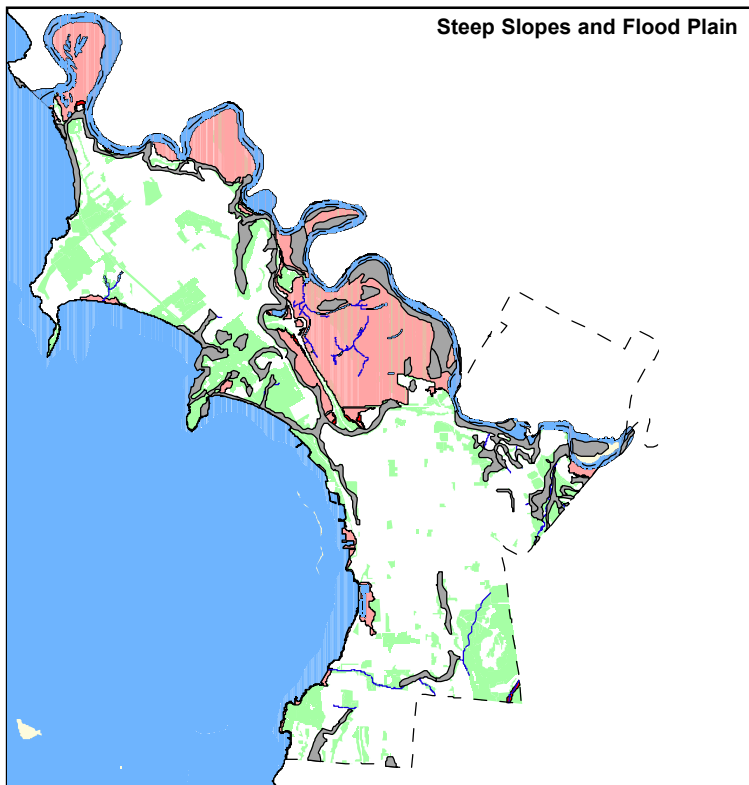
- Get to know the wetlands on your property and in your town, and share their uniqueness than others
- Help draft local wetlands protection guidelines in town plans and zoning regulations
- Join or support town conservation commissions, and encourage them to make site visits on projects that involve wetlands
- Conduct an inventory of the wetlands in your town
- Support wetlands education efforts, including efforts for landowners who own wetlands
- Start or join a watershed association to protect and restore your watershed
- Find alternatives to using pesticides and fertilizers in yards and gardens
- Support the Lake Champlain Basin Program, the Vermont Natural Resources Council, and other organizations that spearhead programs to protect and restore wetlands²

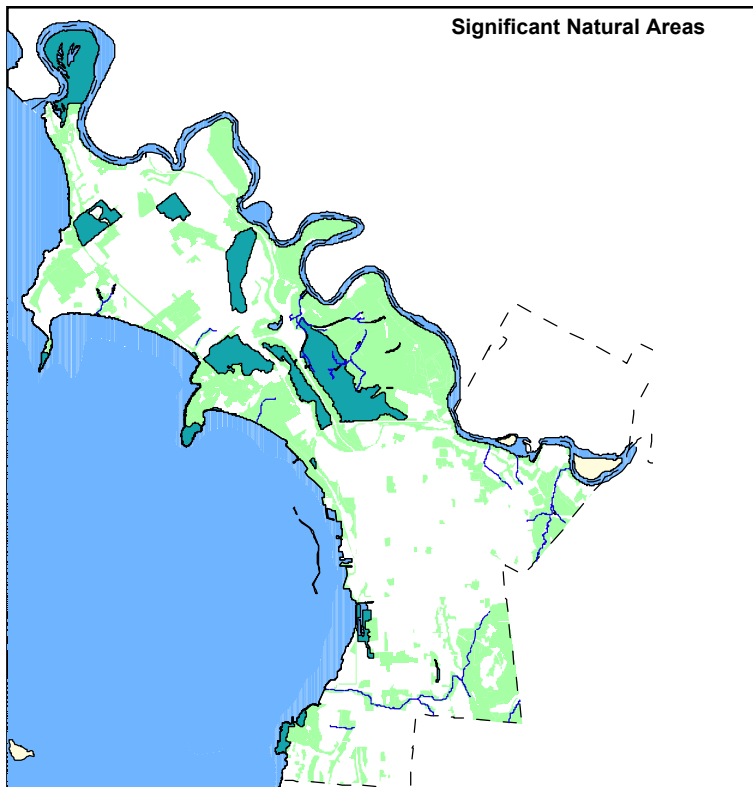
Some of these actions require hard work, difficult choices, and personal dedication. But when we begin to decrease the impacts each person makes on the environment, we start building a healthier and more sustainable future for ourselves, our children, and all species that share the planet.²

Surface Water Features
(streams, lakes, ponds, wetlands)

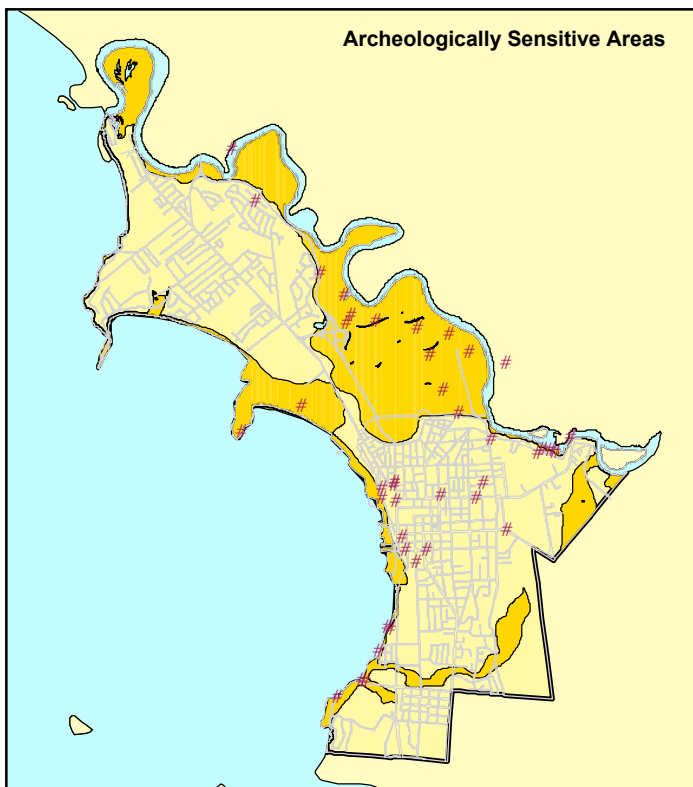


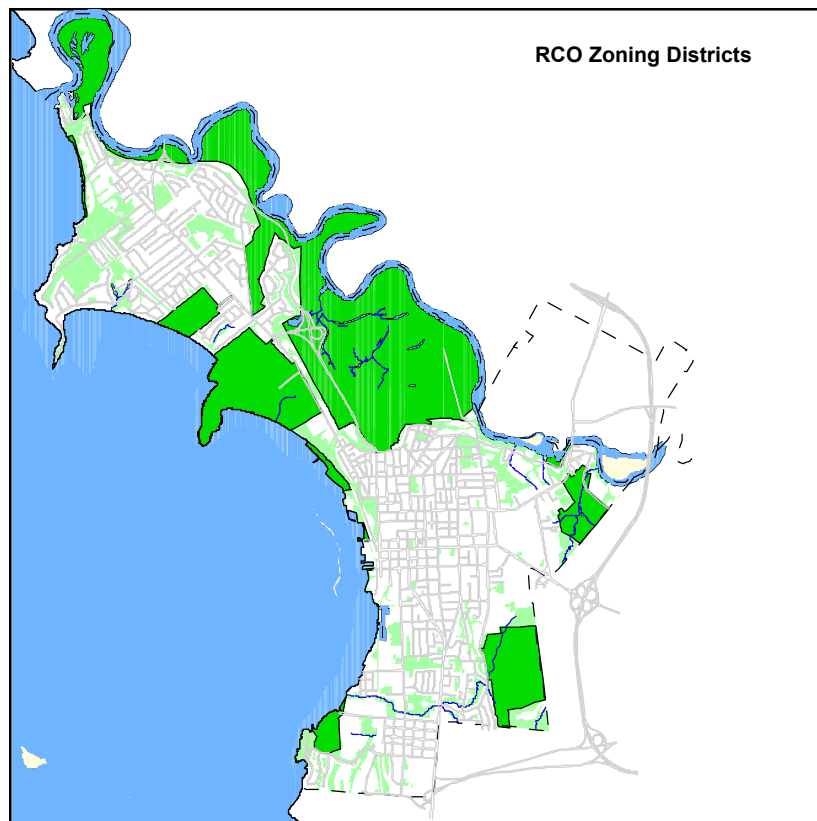
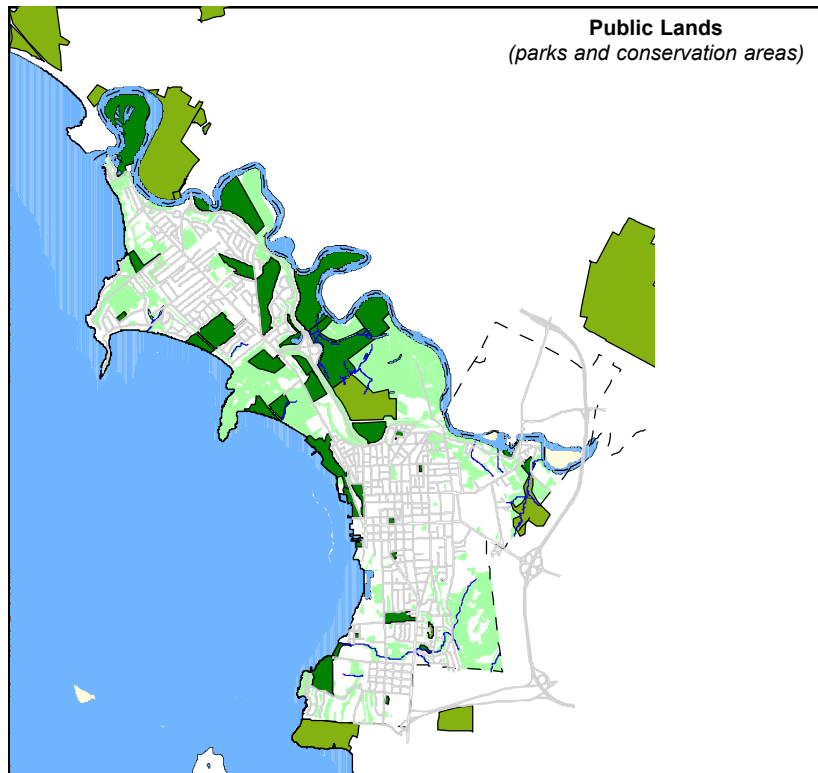
Steep Slopes and Flood Plain





"The habitats of both common and rare species are compromised by humans, but rare species are especially at risk. Human activities and other causes have placed 187 species on the state's endangered and threatened list, including 34 animals and 153 plants. The common loon, softshell turtle, sedge wren, and wild lupine are all on the list. Eight more species currently are being considered for the endangered or threatened list, and another 586 animals and plants are considered rare or uncommon in Vermont."²





Placeholder for land inventory

Placeholder for land inventory

4.4 A Plan of Action

Recommendations for Open Space Protection

The *Burlington Open Space Protection Plan* presents a far-reaching strategy that will enable the City to pursue and implement its long-held goals for open space protection. This **Plan of Action** introduces and describes a comprehensive land conservation program for the City of Burlington that is to be implemented through three complimentary approaches:

- 1) **Conservation Education** to improve the public's familiarity and appreciation of Burlington's natural areas, to communicate the importance of open space protection, and to encourage public participation in the protection process;
- 2) **Proactive Conservation** that identifies sites of the highest priority for protection, and offers the mechanisms and resources to set these lands aside as a legacy to future generations. The cornerstones to this approach include the creation of a *Burlington Conservation Fund* by the City, and the establishment of a *Conservation Legacy Program* which will guide the acquisition of conservation land; and,
- 3) **Future Planning and Improved Development Review** to continue the planning process for open space protection in the city, and act as a safety net for specific resources and features from the adverse impacts that may be associated with nearby development.

No single component can stand alone as an effective long-term strategy, but together, they create a comprehensive approach for open space protection. This framework is designed to evolve with the needs and priorities of the City of Burlington as they change over time. Each is further described below.

1) **Educate** people about the importance of the natural resources found throughout the community, and how they benefit our quality of life.

Opportunities must be provided for city residents to become better aware and informed about the beautiful places and important resources found in Burlington, and how these add to quality of life, environment, and the economy. With this knowledge and insight, residents will better appreciate the diversity of the city's landscape and understand the importance of long-term protection.

Public education is primarily the responsibility of the Burlington Conservation Board. However, every effort must be made to work in partnership with the many state and local agencies, and non-governmental organizations that share an interest in land conservation and stewardship. Examples include the Winooski Valley Park District, the VT Land Trust, the Lake Champlain Land Trust, VNRC, The Trust For Public Land, and many others.

Partnerships help to spread the workload, cost, and message to a broader constituent base. The Conservation Board may also be able to draw upon citizens with specific interests, talents and skills willing to volunteer their time to broaden the Board's capability and capacity in this regard.

Opportunities for public outreach and education include:

- **Educational programs in schools:** Many of Burlington's teachers are interested in teaching about the natural environment and conservation. By offering a source of local knowledge and information, school children can learn about nature in their own backyards, and bring this knowledge back home to their families. Examples include VINS' ELF Program and the Orton Institute's place-based educational programs.

- **Interpretive walks and tours:** People love to learn first-hand. By creating opportunities to experience some of the city's natural places, people can begin to appreciate how valuable these places are to the community. Burlington is rich with knowledgeable guides who may be willing to offer an evening or weekend morning to share their love of nature. Nature walks can be combined with local history and archeology to further broaden the discussion and interest.
- **Publications and Media:** Newsletters, interpretive guides, posters, calendars, etc. can all be used to celebrate natural areas, educate the public, advertise events, and promote conservation. Experience and research indicates that a broader use of media is an effective means of reaching and educating the public. Publications can be posted on the internet to widen their circulation, or offered for sale to help offset the cost of outreach programs. Other forms of outreach should include public service announcements, cable and commercial TV, and radio programming.
- **Public Events:** Planning and sponsoring special events are another way of getting the word out and generating support for open space protection. Examples include: guest speakers, benefit concerts, photo contest, clean up days, etc. Many opportunities exist to collaborate with other groups on special days including Arbor Day, Earth Day, Green-Up Day, etc.
- **Adopt-a-Site Program:** Local businesses and service organizations may be willing to volunteer time and/or raise/donate money to oversee, clean-up or otherwise help protect specific sites around the city.

2) Provide a **legacy of lands** set aside for conservation and passive recreation to benefit future generations.

Land acquisition is a central element of the *Open Space Protection Plan*. Ultimately, the purchase of land by a public or non-profit organization is the only option that assures long-term protection for significant natural areas and open space. For an acquisition program to be successful however, predictable and timely action is required. Burlington must have a process that identifies sites of the highest priority for protection, and provide the mechanisms and resources necessary to set these lands aside as a legacy to future generations.

The cornerstone of this strategy is the establishment of a **Burlington Conservation Fund** which is sustained in-part with a predictable, local funding source dedicated toward the cost of purchasing land and related costs of acquisition and management; and, a pro-active **Conservation Legacy Program** which prioritizes lands that are most important and most suitable for long-term protection, and assures proper planning and long-term stewardship of property acquired by the City.

Why choose to acquire land?

Burlington, like many other communities across the nation, is increasingly viewing natural and recreational lands not as "vacant," but as community assets that support residential quality of life, drinking water quality, food security, tourism and other business development, and a sense of place and history defined by a unique landscape. With this realization comes the responsibility for nurturing and protecting those assets over the long term.

While regulation can limit the number, nature, or extent of land use, our system of laws vests in property owners the right to use their real estate as they see fit, within certain regulatory limitations. Regulation

does not guarantee a particular land use on a property, but only sets parameters within which such a use can occur. Regulatory limitations can also change over time in response to land use and political trends, or new information. Land that may have been permissible to build on in 1970 may no longer be considered appropriate today (i.e. wetlands).

Conversely, technological improvements continue to make it possible for to build in places where cost and practicality would otherwise have rendered them "unbuildable." Arguably then, the only way to assure permanent protection of certain special lands and the natural resources on them - or to put land to a specific use such as public recreation - is to own the land, or rights in it.

Acquiring land for scenic, natural, and recreational purposes is one of the surest ways for any community to secure its most important land assets from incompatible development in an uncertain future. In 1998 more than 120 open space funding measures were adopted across the country. In 1999, an additional 55 local and county measures were approved.

An ongoing, well-funded, and predictable program of land protection is the best way for a community to invest in strategic land acquisition, and take advantage of matching funds that may be available from state, federal, private and non-profit sources.

Potential donations of land, as well as potential purchases, should be screened through the same process, to ensure that the City only acquires the most appropriate resources in a way that does not create an unreasonable burden on city resources.

The remainder of this Chapter outlines recommendations for the creation of a *Burlington Conservation Fund* and a *Conservation Legacy Program* for future land acquisition and stewardship.

The Burlington Conservation Fund

Funding is a crucial aspect of any land conservation program, and Burlington is no exception. Without the resources necessary to see this Plan through to fruition, the vision and objectives articulated will remain only on these pages.

Many communities throughout the state and nation have established local conservation funds to be used for the permanent protection of open land. National examples include 16 of 21 counties in New Jersey, Portland, Oregon, and Boulder, Colorado. Local examples include: Jericho, Williston, Shelburne, Hinesburg, Berlin, and Stowe.

The 1996 *Burlington Municipal Development Plan* recommended that the City "implement a land conservation program and fund to purchase natural areas and easements..." In February 1997, the Burlington City Council passed a resolution calling upon the Conservation Board to research a strategy that would lead to the establishment of a "Burlington Conservation Fund."

The creation of such a fund is a fundamental recommendation of the *Open Space Protection Plan*. In fact, the establishment of a Fund must precede nearly all other aspects of this Plan. A local conservation fund will allow the City of Burlington to be proactive, and therefore effective, in protecting, acquiring, and managing lands for the benefit and enjoyment of future generations.

Following is an outline of options and considerations which should guide the creation of a Land Conservation Fund by the Burlington City Council. These options address the purpose and structure, funding mechanisms and governance.

Purpose and Structure:

At the very least, a land conservation fund is dedicated to acquisition and conservation initiatives. This approach best addresses the specific needs and community objectives for land conservation. However, it may be advantageous to consider structuring the

The essential aspects of any local conservation fund for Burlington include:

- a) The creation of a **dedicated repository** for funds raised and/or allocated that is separate from the city's General Fund and whose assets can be carried over from year to year.
- b) The use of a range of funding options including the creation of a **source of local capital** to leverage other sources of funding.
- c) **Fiscal oversight** and authority vested in the City Council and Board of Finance.
- d) A **reasoned rationale and reliable process to allocate funds** for the acquisition of interests in land and its long-term stewardship.

Many cities and towns in Vermont have established land conservation funds, through various pathways:

Charlotte: Conservation fund funded by 2 cent/dollar property tax increase, passed by overwhelming 80% of voters.

Hinesburg: Raised \$5,000 at 4th of July 1995 parade and auction.

Shelburne: Preserved 29 acres along the LaPlatte River, funded by The Nature Conservancy, VHCB, Conservation Trust Fund, the Vermont Duck Stamp Fund, and the Shelburne Open Space Acquisition Fund.

South Burlington: Conservation fund funded by 1 cent/dollar property tax increase in 2000.

Stowe: \$600,000 bond issue funded by tax increase.

Waitsfield: \$20,000 budget appropriation.

fund to also benefit other important needs within the community. Options for structuring such a fund that should be considered include:

- A “land conservation fund,” similar to those found in many other communities around the state and country, that is dedicated specifically to land conservation and management.
- A “housing and land conservation fund” built upon the existing Burlington Housing Trust Fund where the funding is used to support both affordable housing and land conservation.
- A fund that links housing, historic preservation and land conservation.

Regardless of the purpose and possible linkages, the proposed conservation fund must be a dedicated repository for funds raised and/or allocated that is separate from the city’s General Fund, able to receive funding from a variety of city and non-city sources, and whose assets can be carried over from year to year.

Funding Options:

It is highly unlikely that the City could fund land conservation entirely on its own. Therefore a Burlington Conservation Fund must rely on a range of city and non-city funding sources.

Almost without exception, federal, state and foundation funding requires a tangible local commitment in order to demonstrate local support for the project. The leverage local funding provides makes city dollars go much further than they otherwise would on their own.

In addition to leveraging non-city sources, local funding provides an annually recurring and predictable investment without posing an increased burden on the other fiscal needs of the City. Local funding can also be used to insure responsible long term stewardship for land that is purchased by the city in the future.

A range of city funding options that should be considered include:

- **Capital Budget:** The City allocates funding for capital projects in the Capital Improvement Program (CIP) which includes a 1-year Capital Budget and 5-year Capital Program. The use of General Fund capital dollars would not have an additional impact on the individual property-owner or taxpayer as they are borrowed. However, funds would have to be allocated on an annual basis and would directly compete with several important capital improvement needs of the City.

- **Bonds:** The City, with voter approval, can issue bonds that would capitalize a Burlington Conservation Fund over a specified period. Several states (California, Florida and Maine) have recently used bonds to create significant statewide environmental and conservation programs. Bonding would provide a consistent source of income with little additional impact on the individual taxpayer. However, bonds are only issued for a specified time period. To maintain the revenue stream after the term expires would require the approval and issuance of another bond, or the use of alternative sources.

- **Dedicated Tax:** The City can create a tax (or expand an existing tax) whose revenue is specifically dedicated to land conservation and management. Examples include a dedicated property tax, a real estate transfer tax, a regional gas tax, or a sales tax. There are examples of other dedicated taxes in the city including the street tax and the housing tax. A recent poll of Burlington voters found that there is strong public support for a local tax that would be used to support a Burlington Conservation Fund. The VT Housing and Conservation Trust Fund is supported by a real estate transfer tax as are the land bank commissions of Martha’s Vineyard and Nantucket in Massachusetts. A major benefit of the property transfer tax is that it does not

impose an additional burden on the property tax, and it builds upon a clear relationship between land development and land conservation.

- **Impact Fees:** The City could amend the Impact Fee Ordinance to include an assessment for impacts on open space and natural areas created by new development. The use of impact fees is limited to capital needs of the city that are directly related to the impacts of growth and development. The City currently assesses impact fees for fire, library, school, streets, and parks. The use of Impact Fees would then be linked to the City's Capital Budget and Program

- **Annual Budget Allocation:** The City may allocate operating funds in the General Fund portion of the Annual City Budget towards the Burlington Conservation Fund. Many local governments in Vermont annually allocate general fund dollars for land conservation programs. The use of operating funds in the annual budget would not pose an additional impact on the individual property-owner or taxpayer. However, funds would have to be allocated on an annual basis and would directly compete with all other operating needs of the City.

Additional funding for land conservation activities can come from any number of city and non-city sources. Examples of non-city sources include:

- **Federal Funds:** The City may seek funds from federal programs which support open space initiatives including: the Land and Water Conservation Fund (LWCF), the US Forest Service's Urban & Community Forestry Programs, the EPA Sustainable Development/Community grants, the Safe Drinking Water Act, TEA-21 Enhancement Program Grants, National Park Service trail and historic preservation grants, Community Development Block

Grants, Better America Bonds (proposed), congressional appropriation, and others.

- **State Funds:** The City may seek grants from state programs which support open space initiatives including: the VT Housing & Conservation Fund, the VT Urban & Community Forestry Program, VT Recreational Trails grants, state appropriation, and others.

- **Local Fund-Raising:** The City may hold fund-raising events to raise money for open space protection and purchase. These may include a benefit concert with local bands, and auction with donated goods and services, or an outdoor fair with donations from local businesses--each with a small entrance fee or donation. Private fundraising is often most effective when in partnership with other public, private and non-profit organizations.

Governance:

Governance issues for a Burlington Conservation Fund include who has the authority to allocate and spend monies from the fund, and who is assigned the managerial oversight of the purposes for which the funding is used. It is of central importance that the conservation interests of the Conservation Board be balanced with the administrative and stewardship responsibilities of the Parks & Recreation Department in any governance structure that is used.

Because a Burlington Conservation Fund would use public monies, fiscal oversight from a public body is necessary. As with nearly all other fiscal matters of the City, the Board of Finance (comprised of the Mayor, City Treasurer and representatives from the City Council) and the City Council hold the fiduciary responsibility of the community. It is then a logical conclusion that the Board of Finance and City Council would have the final authority regarding the allocation and expenditures of revenues from any conservation fund that were to be created.

In some Cape Cod communities, development has been so furious that property taxes have doubled to pay for schools and other services. The water table is being polluted by septic tanks, and roads are clogged with traffic.

In November 1998, voters decided that one sure way to protect the Cape's open land was to buy it. Fifteen communities—every town on Cape Cod—passed a 3 percent property tax surcharge to fund the purchase of open space for a Cape Cod Land Bank, at an average annual cost of \$57 per household.³

In many cities, such as Boulder, Colorado, open space programs funded by taxes have been implemented by an amendment to a city's charter.

The Council may however choose to designate by resolution some responsibility to another body. One example is the creation of a Board of Trustees comprised of Conservation Board, Parks & Recreation Commission, and perhaps Planning Commission members. It would be their responsibility to oversee and monitor the activities of the fund, finalize a process for allocating fund revenues, and make recommendations to the Board of Finance and City Council regarding budgets and allocations.

Managerial oversight of the conservation fund could be the responsibility of the Conservation Board through their staff or the Parks and Recreation Department. The fund manager would be responsible for maintaining fund records, collecting and dispersing monies, raising non-city funds, monitoring the actual use of fund monies and annual reporting to the Board of Trustees and City Council.

Because in nearly all instances land purchased under a conservation fund would become part of the City's park system, management and stewardship responsibilities would likely fall to the Parks & Recreation Department under the direction of the Conservation Board.

Fund Allocation:

The process for how, when and for what purposes funds from the proposed Burlington Conservation Fund are used needs to be well established from the very beginning. The Burlington Conservation Fund should support a variety of activities related to natural area and open space protection in Burlington, including:

- **Land Acquisition**

- Acquisition of land, or interests in land, by the City for permanent conservation and protection.
- Legal and other fees associated with land acquisition.
- Service on any debts associated with land acquisition.

- Reimbursement to the General fund for tax revenue lost from any property tax remission for land conservation.
- Providing local matching funds to a partnering land conservation organization for the acquisition of land or interests in land in the city.

- **Land Management***

- Preparing long term stewardship and management plans for conservation land newly acquired by the City.
- Monitoring and enforcement of city-owned easements.
- Limited capital costs associated with the implementation of long term stewardship and management plans for conservation land newly acquired by the City.

- **Administrative costs***

- Administrative costs associated with fund management and acquisition planning.
- Information, research and analysis of open space trends and issues.
- Conservation Education Programs.

*The percentage of the Fund used for administration and management purposes should be limited. The Burlington Housing Trust Fund, for example, allocates 60% of funds to housing projects, 25% to cover administrative costs of these projects, and 15% to staffing. The Burlington Conservation Fund could follow a similar breakdown, adjusted over time. These funds could be allocated directly to the Conservation Board or the Parks & Recreation Department as part of the annual City Budgeting process.

Conservation Legacy Program

In partnership with the creation of a Burlington Conservation Fund is a recommendation that the City establish a *Conservation Legacy Program* which plays a central role in the acquisition and stewardship of important open spaces and natural areas within the city. The Burlington Conservation Legacy Program would be comprised of three programmatic elements:

- **Conservation Education**
- **Land Acquisition Planning**
- **Stewardship and Management**

The implementation of such a program will require a partnership within City government between the Burlington Conservation Board and the Parks & Recreation Department where the Conservation Board plays a primary policy role while the Department undertakes some or all of the stewardship responsibilities. Two alternatives exist for future consideration.

The first is a program that formalizes the Parks & Recreation Department's mission as it relates to natural areas. Seats on the Parks & Recreation Commission would be added or dedicated to people with specific land conservation expertise and interests. The Conservation Board would play an oversight role in the development of acquisition projects and long-term stewardship activities that are undertaken directly by the Department and its staff. Future acquisition of natural areas would be additions to the "District Parks" portion of the city parks system.

The second is a program that takes better advantage of the Conservation Board's existing mission and authority to acquire and manage conservation land. The Conservation Board and its (expanded) staff would have direct responsibility for developing acquisition projects and implementing long-term stewardship in coordination with or under contract to the Parks & Recreation Department. Future acquisition of natural areas would be

combined with "District Parks" as either part of the existing city parks system or a parallel system of "Urban Wilds."

The optimal nature of such a relationship will require further discussion and evaluation by both entities, and final endorsement via resolution and agreements. The remainder of this section outlines some of the major considerations and options for the creation of such an acquisition program.

Acquisition Methods

The type or method of acquisition chosen for any particular property or resource is largely dependent on the purpose of the acquisition. Knowing the objective of the purchase is essential to the project design and negotiation strategy. Although most often when we think of a land purchase we think in terms of full (fee-simple) ownership, consideration should be given to the full array of acquisition methods, used singly or in combination, in order to construct the most appropriate and cost effective protection project. Some examples are:

1) Own the land outright (fee simple) and manage it. The simplest and most straightforward method to acquire land, whether by donation or purchase, is acquisition of a full fee ownership, and is frequently the only option a Seller will consider. Owning and managing land is the best way to retain the most control over a property. However, it frequently involves higher costs for up-front purchase and continuing management responsibilities.

2) Own the land (fee simple) and agree to have another party manage it. This method preserves the benefits of owning the land, but reduces the ongoing responsibilities by involving another party in its management, either through mutual agreement, or under contract. In ideal circumstances a managing entity can be identified which has a compatible or similar interest in maintaining the property, and would perform the management duties at low or no cost to the owner. Proper management is ultimately the most important consideration to ensure the

Based on a poll conducted by the Trust For Public Land, the most important improvements that Burlington residents would like to see this program effect are *preserve -and -protect functions*:

- Protecting the quality of drinking water
- Improving water quality for fishing and boating
- Protecting natural habitat of plants and wildlife
- Preserving scenic views of the lake and mountains¹²

Purchase-of-development-rights (PDR) programs began on the East Coast and have since spread across the country. Fifteen states and dozens of county and municipal governments now sponsor PDR programs, with funds from some transactions coming from both state and local sources. State PDR programs alone have protected more than 470,000 acres.³

continuing security of the features the acquisition was intended to protect or provide.

3) Acquire a partial interest in the land.

Owning real estate may be thought of as owning a “bundle of rights” that may be divided or shared in almost limitless combinations. It is often possible to strategically protect the essential values prized by the community without owning the property outright. For example, if a farmer uses a field for agriculture, which also provides an extraordinary scenic view of the lake beyond, the City may offer to purchase a scenic easement, restricting development on that field. Alternatively, the City could offer to purchase the property, with the landowner retaining the agricultural rights. In either case, both the scenic views and agricultural views are protected. In fact, in many cases this flexibility may be the only option that allows the interests of both Buyer and Seller to be met.

Five of the most common examples of partial interest involve:

a) A “Conservation Restriction” or “Conservation Easement.”

When a landowner sells or donates a conservation easement or restriction, they agree to restrict their use of the property for development or other activities of concern to the buyer or donee. These easements are usually permanent, and require careful research, thinking and legal documentation to be effective, but have proven to be one of the most relied-upon conservation tools. Landowners may be compensated for putting their land under easement by public purchase of the easement and/or property tax consideration.

b) Use rights

A landowner may sell or donate his or her rights to use their property in a specific way. For example, the City may purchase a trail easement to allow

the public to recreate on a linear path through the property.

c) Deferred interests

Deferred interests include remainder interests, most commonly used to allow a landowner to continue to inhabit their property for the remainder of their lives, or for a certain use or ownership to continue for a period of years. In such cases, the property is conveyed subject to the landowner’s ongoing use. The full ownership of the property by the City is deferred until that time is up.

d) Partial undivided interests

Land may be owned by more than one individual or entity. A typical example is when land is willed to heirs who will each then own an undivided partial interest in the land in a certain percentage, usually equal percentages. It is possible to purchase or accept ownership of one of these interests. Owning a partial interest may allow the City to be a “spoiler” - preventing unwanted development or other activities on the property - however, other owners may also be able to prevent the City from using the property as it wishes.

e) Limited development

Sometimes a property can be partially developed in a way that protects the most important natural values of the whole tract. The advantage to this type of protection is that the development may help pay the cost of protecting the remaining open space. However, partial development is often a complex and risky endeavor requiring professional expertise.

4) Long term lease or easement/Right of First Refusal. When it is desirable to own a property or an interest in it, but the landowner is currently not willing or able to sell or donate, the best solution may be to enter into a limited term lease or easement, and ask for the right of first refusal when the landowner is ready to sell. A lease or temporary easement, though impermanent,

allows the City to use or protect the property on an interim basis and continue to develop a relationship with the landowner. A right or first refusal gives the City the opportunity to match any offer the landowner would otherwise accept, insuring against losing the property to another buyer without forewarning.

5) Special Municipal Powers. As a municipality, the City has other methods of acquiring land not available to individuals and non-profits. While these have a somewhat regulatory flavor, they are best suited for discussion here. In either case, the same prioritization and project planning efforts must be completed in order to justify their purchase.

a) Inclusion of priority sites on the "Official Map"

The "Official Map" is a map, approved by the City Council, of sites and properties that are slated for future public use. Often they include the location of future streets, schools, parks, and other public facilities. If development is proposed for a site found on the Official Map, the City has 120 days to acquire the land for the slated public purpose. Like a Right of First Refusal, this gives the City the option to step in to protect a site before it is developed, but does not bind the City to any action until a specific development proposal is made.

b) Condemnation

Condemnation, or the power of eminent domain, allows the City to acquire – at the fair market value – any property for a public purpose where "the public good, necessity and convenience of the inhabitants of the municipality" would be served. While a choice of last resort, condemnation remains an option for consideration when no other method of acquisition is suitable or available.

c) Development Review

Communities are enabled to create set asides for open space and recreation land under local subdivision regula-

tions. Burlington has used this successfully in the past as noted previously. Additionally, standards for planned residential developments (PRD's) and planned until developments (PUD's) can require applicants to set aside open space and recreation land.

The Role of Partnerships

It is unusual for any municipality to have dedicated staff sufficient to perform all of the tasks necessary to complete a successful project. Partnering is a good way to marry the strengths of individuals or organizations to accomplish what would be difficult or impossible to accomplish alone. Burlington is fortunate to have so many potential partners readily available. These include city departments; state and federal agencies; adjacent communities; local, regional, and statewide land trusts; state and national non-profit organizations; and regional conservation organizations.

In forming partnerships, it is important to understand that three things are necessary for the partnership to flourish: there must be 1) benefit to all partners in the outcome; 2) a clear understanding of the partnership roles; and 3) a voice in the process commensurate with the risk and commitment of the parties. That said it is common for organizational missions and interests to overlap. Several common partnership models for towns or cities working cooperatively with outside entities include:

• **Pre-acquisition/Project Management**

Assistance: Cities and towns rarely have sufficient staff or resources to manage large or multiple acquisition projects, and they can rarely risk public funds in anticipation of a future appropriation. Private land trust organizations have more flexibility. They are often in a better position to negotiate with landowners and enter into contracts to secure site control (purchase or option agreements) on property that the City might otherwise not be able to acquire in a timely manner.

In November, 1998, voters across the country approved more than 100 ballot measures that triggered, directly or indirectly, more than \$7.5 billion in new state and local funding for land acquisition, easement purchase, park improvements, and protection of historic resources.

"There is little open space in the Old North End. This low-income community is quite dense and needs more open space than the less congested parts of town and more affluent people who can drive to open spaces. "

--a Burlington resident

"The most important value is to preserve habitat, and connections of existing protected areas are critical. Habitat fragmentation is a major threat to biodiversity in this area."

--a Burlington resident

- **Fund-Raising:** Fund-raising can be a time-consuming and complex endeavor. Cities and towns often look to leverage their own funds with others to make their acquisition dollars go further, and nonprofit organizations partnering with the City on a project may be willing and able to help. Raising funds from private individuals versus federal or state sources require different skills and staff expertise, another consideration in choosing partners. (See appendix list of Cash & Non-Cash, Public & Private funding sources)
- **Management Assistance:** Many land trust, educational and neighborhood organizations may act as managers or volunteers to public agencies charged with managing land for the public. Management can include trail maintenance, endangered species habitat protection; educational studies; or easement monitoring, to name a few.
- **Public Access Grant:** Open space may be purchased by an external entity. Land may be purchased by either a public or nonprofit organization with public access granted to the City. This could be achieved either through matching funds or through a group of purchase partnerships.

Acquisition Priorities:

While a Land Legacy Program will benefit greatly by leveraging funds from a range of sources, and collaborating with others to form strategic partnerships, it will never be in a position to protect all of the sites worthy and in need of protection at one time. It is necessary to define priorities and a process to consider and evaluate future acquisitions.

Citizen input gathered in open neighborhood meetings, formal and informal surveys, and public hearings reveals the public's strong interest in seeing important City lands protected, and their views on the relative importance of particular areas to natural and recreation needs city-wide.

The *Geography of Open Space* defines a citywide vision for open space protection by identifying the major landforms, natural features, and community development patterns of significance to the open space protection needs of the City. In doing so, it identifies priority areas for long term protection including land acquisition. These priority areas are:

Significant Natural Areas:

- Lake Champlain Shoreline
- Winooski River Corridor/Intervale
- Englesby Brook/Ravine
- Centennial Brook/Woods
- Natural Heritage Sites/Surface Waters

Urban Open Spaces:

- Neighborhood Greenspaces
- Urban Waterfront
- Treebelts
- Recreational Linkages & Trails

With the help of these priorities, and the *Open Space Inventory* as an information tool, the City can develop a rating system (a model of which is included in the Appendix) that provides a clear and objective system for evaluating lands for possible public acquisition. In addition to lands identified by the City, interested citizens should be encouraged to offer their suggestions.

As it finalizes its ranking system, the City may decide to assign numerical rankings, or simply establish a review checklist of significant issues. While only one or two properties might be pursued for acquisition at any one time, it is advisable to work from a list of up to 5-10 priority sites.

Project Design & Evaluation

As a property is identified for potential acquisition, a plan or strategy must be developed in order to articulate the public interests in the property, the proposed likely use(s) and stewardship responsibilities, identify the most appropriate method of

acquisition, and identify likely funding sources and project partners. Among the many issues to be considered and addressed, include:

- The natural, scenic, cultural, or recreational attributes of the land and how they advance the community's goals for land conservation and protection;
- An assessment of the properties availability for purchase, and the level of threat present to important resources;
- A preliminary outline of future use(s) and stewardship requirements;
- The capacity of the City to advance the project in a timely manner and serve as a responsible steward of the proposed property;
- The need to enter into strategic partnerships with outside groups;
- The lead entity or team responsible for negotiating the acquisition process;
- The most appropriate acquisition method, and the estimated cost of acquisition and long-term stewardship;
- The most appropriate funding source(s) and strategy for obtaining them;
- The lead entity or team responsible for long-term monitoring and/or stewardship.

To verify the site's natural, recreational, or cultural attributes and inform management decisions, a site visit by appropriate staff and/or volunteers should be done for each potential acquisition. A report or checklist should be developed to record the findings of each site visit.

Many issues contribute to the relative priority of a parcel. In addition to natural or recreational functions, such issues as geographical distribution, accessibility to the public, threat of imminent development, special funding availability, links to other protected areas, etc. should be considered.

Stewardship

Regardless of what is protected and for what purpose, any future acquisition of land must consider the capacity of the City to responsibly manage and care for the resource. This must be an important part of the project design phase of the process, and be the subject of more detailed stewardship planning once the site has been acquired. Specific issues to be considered and addressed include future uses, rehabilitation and capital improvement needs, ongoing oversight and responsibility, and funding. This City's limited capacity in this regard must be partnered with other organizations and governments in order to assure long-term responsible stewardship.

3) Include open space priorities in future planning by the City, and make strategic improvements to City development review process to protect important resources.

Future Planning

Planning is a continuing process. Once a plan has been completed, the community changes and plans must be able to evolve to stay relevant. Planning is also a web of related, yet distinct efforts – each dedicated to its own purpose, yet linked to one-another. For these reasons, the open space priorities and recommendations contained in this Plan must be incorporated and expanded in future planning by the City.

A) Municipal Development Plan:

The City's Municipal Development Plan, or Master Plan, presents Burlington's vision for land use and development over the next ten to twenty years. A municipal development plan is prepared and adopted every 5 years in accordance with state statute, and is the City's principal guide directing policy and decision-making regarding future land use and

development. All city ordinances and decisions related to land use and development are intended to implement this vision and plan for the community.

The current Municipal Development Plan was adopted in 1996 and will under-go a revision in anticipation of renewal in June 2001. This revision of the City's Master Plan should specifically include the central priorities and major policy recommendations of this Plan.

B) Capital Improvement Plan

A Capital Improvements Plan (CIP) is a plan and schedule for the expenditure of funds, from a variety of sources, for public improvements over a six-year period. A CIP has two components: (1) a capital budget which lists and describes capital projects to be undertaken in the coming fiscal year; and, (2) a capital program which lists and describes capital projects proposed to be undertaken in each of the following five fiscal years.

By providing a multi-year overview of expenditures and projects, the CIP allows the city to assess its capital needs and schedule essential improvements over time, and in a way that is consistent with the community's development priorities and financial capability. The CIP also provides a picture of what various city departments are proposing to the public and encourages improved scheduling and coordination of projects. While not always feasible, land acquisition proposals should be identified in the City's Capital Improvement Program whenever possible.

C) Urban Greenspace Plan

As noted previously, a second category of open space that is especially important to Burlington are those that are considered "urban open space." These types of sites were identified by the

community as being a very important factor in supporting neighborhood quality of life.

The City's interest in these areas is for softening densely developed neighborhoods, creating an aesthetic within the city, and providing small areas of refuge from the urban hardscape. While not within the original mandate and scope of this planning effort, this Plan offers a framework for establishing their significant within the city. Further evaluation and study in this area is recommended, and this Plan should be amended accordingly.

D) Continued Inventory and Data Development

The *Land Inventory* developed as part of this Plan must be maintained in order to remain accurate and useful to the acquisition program proposed. Other pieces of information about the community and its resources must be gathered and added. Examples of additional information needed includes:

- Informal trails and paths
- Wildlife habitat and travel corridors
- Low-level aerial photography
- Land use and land cover

Land Use Regulation and Development Review

Improvements to Burlington's regulations concerning land use and development are another method of protecting important natural systems and assets. Regulations act as a safety net to protect specific resources and features from the adverse impacts that may be associated with nearby development. Regulations are however limited in their effectiveness over the long-term, because they are subject to change depending on the political and economic climate. The following changes, however, can be effective in increasing the level of open space protection when combined with

efforts toward public education and acquisition.

A) Major Impact Review:

Article 10 of the *Burlington Zoning Ordinance* is referred to as “Major Impact” and ensures that projects of major significance or impact receive a comprehensive review under an established set of criteria. A Major Impact Review is conducted as part of a Conditional Use hearing. Major Impact is triggered largely by the size and scale of a proposed development project with some geographic criteria included.

The City should amend Article 10 of the *Burlington Zoning Ordinance* to ensure that any proposed development located in particularly sensitive parts of the City and/or involving particularly sensitive resources be subject to Major Impact Review. This is not intended to specifically stop future development in these areas, but to ensure a higher level of review and enable protection of important resources and features.

The 1999 *Open Space Inventory* and the *Geography of Open Space* should be used as the primary mechanisms to define the geographic extent of areas that should be subject to Major Impact Review, and the resource features/attributes that should be protected. The following type of locational criteria for proposed development serves as an example:

- Within 250-feet of the shoreline of Lake Champlain;
- Within 100-feet of the 100-year floodplain elevation of the Winooski River;
- Within 250-feet of the centerline of Englesby Brook;
- Within 250-feet of Centennial Brook;
- Within 100-feet of a Natural Heritage Communities;
- Within 100-feet of any wetland; or,
- Within 100-feet of any water bodies or watercourses found on 1:24,000 USGS

Maps. (The USGS Map information is to be used until such time that the Burlington GIS data for hydrological systems is updated.)

B) Zoning Districts:

The current extent of the Recreation/Conservation/Open Space (RCO) zoning districts covers most of the important natural areas and open space identified by this Plan. However, some notable exceptions remain. For example, the mouth of the Winooski River is currently zoned Waterfront Commercial North (WFCN). This is a very dynamic and sensitive natural environment, and is inappropriate and unsuitable for development.

Another example is the southern bank of the Winooski River parallel to Riverside Avenue. The bank in this area is highly unstable and increasingly unsuitable for development. Both locations warrant further protection, and should be considered for rezoning as originally proposed in the City’s Municipal Development Plan.

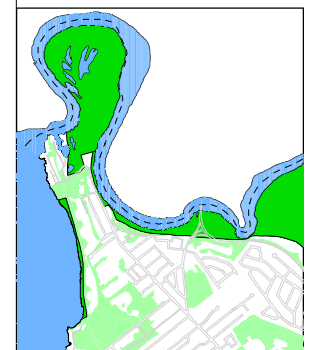
The *Open Space Inventory* should be used to identify other such unprotected areas. The RCO District should be modified where appropriate to include significant areas and corridors - especially those immediately adjacent to existing RCO areas and part of important natural or recreational systems.

C) Design Review and Lot Coverage:

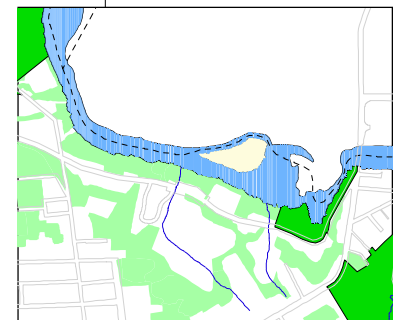
Burlington has set a precedent of extensive design review authority over the past 20 years. Included within the Design Review Overlay District is the Recreation/Conservation/Open Space (RCO) District. The City’s current Design Review criterion, listed under Article 6 of the *Burlington Zoning Ordinance*, however, is deficient in the way of review criteria specific to natural, recreational, and open space resources.

The following maps illustrate areas where there are large areas of open space adjacent to the current RCO zoning district.

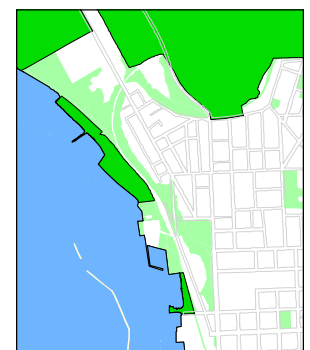
The hatched areas represent open spaces currently zoned RCO, while the shaded areas represent open spaces into which the RCO districts could possibly expand.



Mouth of the Winooski



Riverside Avenue



Northern Waterfront

The City should develop Design Review criteria to be applied specifically in the RCO Design Review District that address the protection of natural systems and open space. This initiative would provide design criteria that are more sensitive to the needs, issues, and values of natural areas and open spaces inherent to these areas of the city. This will serve as an additional measure of protection for the larger and more cohesive natural areas and significant open spaces.

These criteria should be guided by principles of landscape ecology, and consider (1) large patches of undisturbed natural vegetation, (2) connectivity between patches, (3) natural vegetation along water courses, and (4) providing a heterogeneous distribution of nature throughout the city.

Additionally, one or more new criteria should be added to the Design Review criteria that apply within the more densely developed portions of the city. This will ensure a measure of protection for small portions or linkages between or within larger natural systems. The purpose is to ensure the retention of existing open space, water and recreational corridors, and vegetation within the context of an urban environment.

With only a few exceptions does lot coverage (the percentage of a lot that can be developed) allowances in the city reach 100%. The *Open Space Inventory* and the *Geography of Open Space* can be used to identify key public values and resources, and guide the review process to ensure the required greenspace includes the most important and useful portions of a site rather than whatever remains along the margins.

D) Buildable Area Definition:

Currently, the allowable density for proposed development is calculated

based on the entire area of the parcel. This includes portions of the property that cannot be developed due to physical or other limitations. This can have the effect of encouraging development (1) where the buildings are at a much larger scale than those found in the surrounding neighborhood in order to make use of the allowable density on a constrained site; and (2) concentrating the allowed density on a small portion of a constrained site thereby building beyond the capacity of the site to support development. Both situations can be detrimental to the City's natural systems and neighborhoods, and the goal of preserving valuable open space.

The City should amend Article 30 of the *Burlington Zoning Ordinance* to include a definition of *Buildable Area* for the purposes of calculating allowable density in certain parts of the city. The "buildable area" would be limited to only that portion of a property suitable for the construction of structures or other forms of land development, and exclude such areas that are: underwater or subject to flooding, slopes greater than 30%, and lands within the right-of-way of an existing or proposed public street.

Designated growth centers and activity zones such as the downtown, neighborhood activity centers and institutional campuses should be exempted from this provision as they are places where higher density development is desired and encouraged. Offering density bonuses for the protection of important resources and sites could also be considered. Density bonuses are currently available to developments that provide affordable housing or public parking.

E) Subdivision Ordinance & Impact Fees:

Much of the public acquisition of land that has occurred in recent years has been the result of the *Subdivision Ordinance*. This system has been replaced by the assess-

ment of Impact Fees for recreational facilities. The fees collected however are only available for capital costs associated with new/expanded recreational facilities and not for the protection of open space per se.

The City should consider a new Impact Fee that specifically targets the impact of development on the loss of open space as a component of the public infrastructure. This money would be placed in the *Burlington Conservation Fund* for use in the acquisition of land as outlined above.

The *Subdivision Ordinance* also requires the preservation of “natural features and trees.” However, land that is set-aside as “open space” often does not include the most important and sensitive resources and features. The Subdivision Ordinance should be amended to specify the types of natural resources and features that must be preserved, and the *Open Space Inventory* and the *Geography of Open Space* as tools to provide specific direction to the subdivision review process.

F) Official Map:

As noted previously, the Official Map provisions enabled under state statute provides an opportunity for a municipality to articulate the public interest in a

property and facilitate its eventual purchase. The City must act to purchase the property within 120 days of the submittal of an application to develop the property, or the project will continue through the normal development review process.

This can be an especially useful tool for use regarding natural areas and open space protection. When properties have been identified as possessing significant natural features and open space, and are found to be a high priority for public acquisition, inclusion on the Official Map can serve as a de facto “right of first refusal” until such time that a development proposal is offered for review.

The City should use the Official Map to delineate potential purchases of high priority areas as an interim protection measure. These would include areas immediately adjacent to or part of an important natural or recreational system, expansions to city parks and cemeteries, pocket parks and community garden sites, and high-priority natural areas.